Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-22 (canceled).

Claim 23. (Currently Amended) A method for identifying when a driver of a vehicle is not paying attention, the method comprising the acts of:

detecting movement of a steering wheel of the vehicle as a steering wheel angle x;

identifying a steering quiescent phase;

determining ~~a magnitude of~~ an extent of the steering quiescent phase by evaluating at least one of the steering wheel angle x and a time variation ~~rate of change~~ of the steering wheel angle x, said extent of the steering quiescent phase being a time duration in which the steering wheel angle x remains within a predetermined steering wheel angle interval;

identifying a steering action following the steering quiescent phase and determining ~~a magnitude of~~ an extent of the steering action by evaluating the rate of change of the steering wheel angle x; [[and]]

logically linking the extent of the steering quiescent phase and the extent of the steering action using a multidimensional operator that comprises one of i) a family of characteristics, ii) a weighting function and iii) a logical decision function; and

assessing a result of [[a]] said logical ~~link between the extent of the steering quiescent phase and the extent of the steering action to determine~~ linking as a measure of a severity of inattentiveness by the driver while steering the vehicle [[.]] only when the extent of the steering quiescent phase is greater than a predetermined minimum time period and a maximum gradient of the steering wheel angle exceeds a predetermined gradient threshold value.

Claims 24.-25. (Cancelled)

Claim 26. (Currently Amended) ~~The method as claimed in claim 25, wherein~~

A method for identifying when a driver of a vehicle is not paying attention, the method comprising the acts of:

detecting movement of a steering wheel of the vehicle as a steering wheel angle x;

identifying a steering quiescent phase;

determining a magnitude of an extent of the steering quiescent phase by evaluating at least one of the steering wheel angle x and a rate of change of the steering wheel angle x;

identifying a steering action following the steering quiescent phase and determining a magnitude of an extent of the steering action by evaluating the rate of change of the steering wheel angle x; and

assessing a result of a logical link between the extent of the steering quiescent phase and the extent of the steering action to determine a measure of a severity of inattentiveness by the driver while steering the vehicle; wherein,

the extent of the steering quiescent phase is determined for at least one of a time t_1-Δt in a form of a first steering wheel angle fluctuation and for a time t_1 in a form of a second steering wheel fluctuation, in each case based on the detected steering wheel angle x;

the first steering wheel angle fluctuation is calculated in the form of a steering wheel angle variance v(x, t_1-Δt) using the following formula:

$$v(x,t_1-\Delta t)=\mathrm{var}(x(t_1-\Delta t),\ \ldots,\ x(t_1-\Delta t-T))=\frac{1}{T}\sum_{t=(t_1-\Delta t)}^{((t_1-\Delta t)-T)}(x(t)-\bar{x})^2$$

where:

$x(t_1-\Delta t)$	represents the steering wheel angle x at the time t_1-Δt;
Δt	represents a multiple of the sampling interval;
T	represents an observation time window;
$t_1-\Delta t$	represents an observation time;
$\bar{x}$	represents a mean time value of the steering wheel angle x averaged over the observation time window T; and
var	represents a mathematical variance function; and

the second steering wheel angle fluctuation in the form of a steering wheel angle variance $v(x, t_1)$ is calculated using the following formula:

$$v(x,t_1)=\mathrm{var}(x(t_1), \ldots, x(t_1-T))=\frac{1}{T}\sum_{t=(t_1)}^{(t_1-T)}(x(t)-\bar{x})^2$$

where the variables have the same meanings; and

the extent of the steering action, and the logical linking of the steering quiescent phase and the steering action, are determined by formation of a variance ratio $vv(x, t_1)$ as a quotient of the second steering wheel angle variance divided by the first.

Claim 27. (Previously Presented) The method as claimed in claim 26, wherein the variance ratio $vv(x, t_1)$ is calculated in accordance with the following formula:

$$vv(x,t_1)=\frac{v(x,t_1)}{v(x,t_1-\Delta t)}.$$

Claim 28. (Currently Amended) ~~The method as claimed in claim 23, wherein~~

A method for identifying when a driver of a vehicle is not paying attention, the method comprising the acts of:

detecting movement of a steering wheel of the vehicle as a steering wheel angle x;

identifying a steering quiescent phase;

determining a magnitude of an extent of the steering quiescent phase by evaluating at least one of the steering wheel angle x and a rate of change of the steering wheel angle x;

identifying a steering action following the steering quiescent phase and determining a magnitude of an extent of the steering action by evaluating the rate of change of the steering wheel angle x; and

assessing a result of a logical link between the extent of the steering quiescent phase and the extent of the steering action to determine a measure of a severity of inattentiveness by the driver while steering the vehicle;

wherein, the extent of the steering quiescent phase is determined as that time period during which the steering wheel angle remains within a predetermined steering wheel angle interval (Δx).

Claim 29. (Previously Presented) The method as claimed in claim 28, wherein the steering wheel angle interval is predetermined on a basis of a current speed of the vehicle.

Claim 30. (Previously Presented) The method as claimed in claim 28, wherein the extent of the steering action following a previous steering quiescent phase is determined in the form of a maximum gradient of the steering wheel angle which then occurs.

Claim 31. (Currently Amended) The method as claimed in claim 30, wherein the logical [[link]] linking between the extent of the steering quiescent phase and the extent of the steering action at a time t1 is produced by using a multidimensional operator only when

the extent of the steering quiescent phase in the form of its time period is greater than a predetermined minimum time period and the maximum gradient of the steering wheel angle exceeds a predetermined gradient threshold value.

Claim 32. (Previously Presented) The method as claimed in claim 31, wherein the multidimensional operator represents a family of characteristics, a weighting function or a logical decision function.

Claim 33. (Previously Presented) The method as claimed in claim 31, wherein the multidimensional operator is dimensioned on the basis of at least one of a vehicle speed and a driver's driving style dynamics.

Claim 34. (Previously Presented) The method as claimed in claim 32, wherein the multidimensional operator is dimensioned on the basis of at least one of a vehicle speed and a driver's driving style dynamics.

Claim 35. (Previously Presented) The method as claimed in claim 26, wherein in a subsequent act, a result of the logical link operation is mapped in the form of the variance ratio vv(x, t) or of a multidimensional operator, with the aid of a sigmoid function, onto a probability value $P(U_1)$ between 0 and 100%, which represents the inattentiveness by the driver in steering the vehicle at the time t_1.

Claim 36. (Previously Presented) The method as claimed in claim 31, wherein in a subsequent act, a result of the logical link operation is mapped in the form of the variance ratio vv(x, t) or of a multidimensional operator, with the aid of a sigmoid function, onto a

probability value $P(U_1)$ between 0 and 100%, which represents the inattentiveness by the driver in steering the vehicle at the time t_1.

Claim 37. (Previously Presented) The method as claimed in claim 35, wherein for further assessing driver fatigue, the method further comprising the acts of:

determining a first probability vector $O_{n=1}$, whose elements $O_{n=1,k1}$ each represent probability values $P(O_{1,k1})$, of the probability value $P(U_1)$ occurring in individual, predetermined and selected extent levels k_1, where $k_1 \varepsilon \{1 \ldots K_1\}$; and

determining a fatigue probability vector S', whose elements each represent fatigue level probabilities P, of the detected inattentiveness by the driver in steering the vehicle being associated with individual, predetermined and suitably selected fatigue levels, using the following formula:

$$S'(t) = O_1^T \cdot B_1;$$

with

O^T_1 representing a transpose of the first probability vector;

B_1 a matrix B representing predetermined conditional probabilities with respect to the inattentiveness, represented by the indicator $n = 1$; and

K_1 representing the number of extent levels for the indicator $n = 1$.

Claim 38. (Previously Presented) The method as claimed in claim 36, wherein for further assessing driver fatigue, the method further comprising the acts of:

determining a first probability vector $O_{n=1}$, whose elements $O_{n=1,k1}$ each represent probability values $P(O_{1,k1})$, of the probability value $P(U_1)$ occurring in individual, predetermined and selected extent levels k_1, where $k_1 \varepsilon \{1 \ldots K_1\}$; and

determining a fatigue probability vector S', whose elements each represent fatigue level probabilities P, of the detected inattentiveness by the driver in steering the vehicle being associated with individual, predetermined and suitably selected fatigue levels, using the following formula:

$$S'(t) = O_1^T \cdot B_1;$$

with

O^T_1 representing a transpose of the first probability vector;

B_1 a matrix B representing predetermined conditional probabilities with respect to the inattentiveness, represented by the indicator n = 1; and

K_1 representing the number of extent levels for the indicator n = 1.

Claim 39. (Previously Presented) The method as claimed in claim 37, further comprising the acts of:

determining further probability vectors $O_{n=2}\ldots O_{n=N}$, whose elements $O_{n,kn}$ were $k_n = 1\ldots K_n$, each representing probabilities $P(O_{n,kn})$ of the probability values $P(U_n)$ occurring for other inattentiveness indicators $n = 2\ldots N$ for the driver, in addition to the steering inattentiveness $n = 1$ and an eyelid closure behavior $n = 2$ or a reaction time $n = 3$, in individual extent levels k_n, which are predetermined individually for the inattentiveness indicators, and

calculating the fatigue probability vector S" using the following formula:

$$S''(t) = \prod_{n=1}^{N} O_n^T \cdot B_n$$

where

N represents the n-th indicator for the inattentiveness by the driver;

O_n^T represents the transpose of the further probability vectors;

B_n represents the matrix B for the indicator n; and

N represents the number of indicators.

Claim 40. (Previously Presented) The method as claimed in claim 38, further comprising the acts of:

determining further probability vectors $O_{n=2}\ldots O_{n=N}$, whose elements $O_{n,kn}$ were $k_n = 1\ldots K_n$, each representing probabilities $P(O_{n,kn})$ of the probability values $P(U_n)$

occurring for other inattentiveness indicators n = 2...N for the driver, in addition to the steering inattentiveness n = 1 and an eyelid closure behavior n = 2 or a reaction time n = 3, in individual extent levels k_n, which are predetermined individually for the inattentiveness indicators, and

calculating the fatigue probability vector S" using the following formula:

$$S''(t)=\prod_{n=1}^{N} O_n^T \cdot B_n$$

where

N represents the n-th indicator for the inattentiveness by the driver;

O_n^T represents the transpose of the further probability vectors;

B_n represents the matrix B for the indicator n; and

N represents the number of indicators.

Claim 41. (Previously Presented) The method as claimed in claim 37, further comprising:

storing the fatigue probability vector S'''(t-1); and

calculating a more precise fatigue probability vector S'''(t) using the following formula:

$$S'''(t) = S''(t) \cdot A \cdot S'''(t-1),$$

where

A represents a matrix of conditional probabilities between a fatigue level from a previous time step and a current fatigue level.

Claim 42. (Previously Presented) The method as claimed in claim 39, further comprising:

storing the fatigue probability vector S'''(t-1); and

calculating a more precise fatigue probability vector S'''(t) using the following formula:

$$S'''(t) = S''(t) \cdot A \cdot S'''(t-1),$$

where

A represents a matrix of conditional probabilities between a fatigue level from a previous time step and a current fatigue level.

Claim 43. (Previously Presented) The method as claimed in claim 39, wherein, in addition to the steering inattentiveness and optional further indicators for the inattentiveness by the driver, the method determines whether the driver is holding a conversation or is using a control element; and

further wherein said events are evaluated using a probabilistic model in order to make a statement about the probability with which it is assumable that the driver has been distracted, on the basis of the conversation or the control action, and the probability of driver fatigue being the cause of such observed inattentiveness.

Claim 44. (Previously Presented) The method as claimed in claim 41, wherein, in addition to the steering inattentiveness and optional further indicators for the inattentiveness by the driver, the method determines whether the driver is holding a conversation or is using a control element; and

further wherein said events are evaluated using a probabilistic model in order to make a statement about the probability with which it is assumable that the driver has been distracted, on the basis of the conversation or the control action, and the probability of driver fatigue being the cause of such observed inattentiveness.

Claim 45. (Previously Presented) The method as claimed in claim 26, wherein:

the logical link operation is carried out at different times ti, where i = 1-I during a predetermined measurement time interval;

results of the logical operations relating to the times ti are, in each case, stored together with associated weighting factors which represent the driving situation of the vehicle or the current distraction of the driver, in each case relating to the time ti; and

a weighted result of the logical operation is calculated by arithmetic averaging of the results stored during the measurement time interval, taking into account the associated weighting factors.

Claim 46. (Previously Presented) The method as claimed in claim 45, wherein the weighting factors are calculated taking into account at least one of circadian influencing factors and the time since a journey started.

Claim 47. (Previously Presented) The method as claimed in claim 45, further comprising:

outputting information, in a form of an audible or visual warning message to the driver of the vehicle, when the preferably weighted result exceeds a predetermined threshold value.

Claim 48. (Previously Presented) A computer product, comprising a computer readable medium having program code for a controller for identifying inattentiveness by a driver of a vehicle, wherein the program code performs the method of claim 23.

Claim 49. (Previously Presented) A data storage medium, comprising the computer product as claimed in claim 48.

Claim 50. (Previously Presented) A controller for identifying inattentiveness by a driver of a vehicle, comprising:

a steering wheel angle sensor for detecting a current steering wheel angle of the vehicle;

a microcontroller control unit for carrying out the method as claimed in claim 23 in response to the detected steering wheel angle; and

a warning device for outputting audible and/or visual warning information to the driver when inattentiveness has been found when carrying out the method by the microcontroller control unit.

Claim 51. (New) The method as claimed in claim 23, wherein the extent of the steering action following a previous steering quiescent phase is determined in the form of a maximum gradient of the steering wheel angle which then occurs.

Claim 52. (New) The method as claimed in claim 23, wherein the multidimensional operator is dimensioned on the basis of at least one of a vehicle speed and a driver's driving style dynamics.

Claim 53. (New) The method as claimed in claim 23, wherein in a subsequent act, a result of said logical linking is mapped in the form of the variance ratio vv(x, t) or of a multidimensional operator, with the aid of a sigmoid function, onto a probability value $P(U_1)$ between 0 and 100%, which represents the inattentiveness by the driver in steering the vehicle at the time t_1.

Claim 54. (New) The method as claimed in claim 23, wherein for further assessing driver fatigue, the method further comprising the acts of:

determining a first probability vector $O_{n=1}$, whose elements $O_{n=1,k1}$ each represent probability values $P(O_{1,k1})$, of the probability value $P(U_1)$ occurring in individual, predetermined and selected extent levels k_1, where $k_1 \varepsilon \{1 \ldots K_1\}$; and

determining a fatigue probability vector S', whose elements each represent fatigue level probabilities P, of the detected inattentiveness by the driver in steering the vehicle being associated with individual, predetermined and suitably selected fatigue levels, using the following formula:

$$S'(t) = O_1^T \cdot B_1;$$

with

O^T_1 representing a transpose of the first probability vector;

B_1 a matrix B representing predetermined conditional probabilities with respect to the inattentiveness, represented by the indicator $n = 1$; and

K_1 representing the number of extent levels for the indicator $n = 1$.